

Ester-C® Complex
Vitamin C as Calcium Ascorbate with Citrus Bioflavonoids

DESCRIPTION

Ester-C® Complex capsules, provided by Douglas Laboratories®, contain a non-acidic, calcium ascorbate form of vitamin C combined with a citrus bioflavonoid complex.
 Ester-C® is a unique form of vitamin C that is created through a patented, water-based process that combines vitamin C and calcium. Ester-C® is non-acidic and should be well-tolerated by those who are sensitive to the acidic nature of ascorbic acid.

FUNCTIONS

Vitamin C: Vitamin C (ascorbic acid) has numerous biological functions. It is essential for the synthesis of collagen and glycosaminoglycans, which are the building materials of all connective tissues, such as skin, blood vessels, tendons, joint cartilage and bone. Vitamin C is the required coenzyme for two groups of enzymes that catalyze the crosslinking of collagen fibers - lysyl hydroxylases and prolyl hydroxylases. As such, vitamin C is essential for normal wound healing and capillary health.

Vitamin C participates in the biosynthesis of carnitine, serotonin, and certain neurotransmitters, including norepinephrine.

Vitamin C is among the most powerful antioxidants in humans and animals. It is a water-soluble, chain-breaking antioxidant that reacts directly with superoxide, hydroxyl radicals, and singlet oxygen. Laboratory studies show that vitamin C completely protects lipids in plasma and low-density lipoprotein (LDL) against atherogenic peroxidative damage. In addition, vitamin C interacts with glutathione and alpha-lipoic acid, and regenerates vitamin E.

The antioxidant functions of vitamin C appear to have clinical significance in providing protection from free radical damage to the eyes, lungs, blood and the immune system.

Vitamin C is absorbed in the small intestine by a sodium-dependent transport process that is intake dependent. At normal dietary intakes of 60 to 100 mg, up to 80 or 90% of the vitamin C is absorbed. At higher intakes, absorption becomes less efficient. Absorption efficiency and vitamin C utilization may be greatly enhanced during conditions of physiological stress, such as trauma or infection. Maximal absorption is attained by the ingestion of several doses spaced throughout the day rather than in one, larger dose.

Citrus Bioflavonoids: The white layer of citrus peels is especially rich in the bitter tasting flavanones hesperidin and naringin. Citrus juices, however, are low in bioflavonoids. Like most flavonoids, those from citrus are free radical scavenging antioxidants that work in synergy with vitamin C. Ester-C® Complex provides 100 mg of a concentrated bioflavonoid complex.

INDICATIONS

Ester-C® Complex may be a useful dietary supplement for those who wish to supplement their diet with this complementary blend of a unique, non-acidic form of vitamin C and citrus bioflavonoids.

FORMULA (EST)

Each Vegetarian capsule contains:

Vitamin C	490mg
(as Ester-C®** calcium ascorbate)	
Calcium	60mg
(as Ester-C®** calcium ascorbate)	
Citrus Bioflavonoid complex	100mg
(includes hesperidin and naringen)	

**Ester-C® is a licensed trademark of INTER-CVAL Corporation. Manufactured under U.S. Patent No. 4,822,816.

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SUGGESTED USE

Adults take 1 to 2 capsules daily or as directed by a healthcare professional.

SIDE EFFECTS

No adverse side effects have been reported.

STORAGE

Store in a cool, dry place, away from direct light. Keep out of reach of children.

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† These statements have not been evaluated by the Food and Drug Administration.
This product is not intended to diagnose, treat, cure, or prevent any disease.

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Your patients trust you.**